

Patent Claims

1. A shoe (1), especially a sports shoe, with a sole (2) and a shoe upper part (3) connected thereto, the sole (2) having a receiving space (4), in which a damping element (5) can be detachably arranged, characterized in that the receiving space (4) extends substantially or completely through the sole (2) transversely to the longitudinal axis (L) of the shoe (1) and in that the detachably arranged damping element (5) consists of a basic body (6) of plate-like design, which has a number of recesses (7) in which damping parts (8) can be arranged, the recesses (7) in the damping element (5) extending over the entire height (H) of the damping element (5) in the vertical direction (V).

2. The shoe as claimed in claim 1, characterized in that the individual damping parts (8) for arrangement in the recesses (7) are selected in such a way that the shoe (1) or its sole (2) has a desired spring and damping action and/or a desired pronation or supination action.

3. The shoe as claimed in claim 1 or 2, characterized in that the receiving space (4) in the sole (2) is arranged in the heel region.

4. The shoe as claimed in one of claims 1 to 3, characterized in that the recesses (7) have a hexagonal shape seen in the vertical direction (V).

5. The shoe as claimed in one of claims 1 to 4, characterized in that the recesses (7) and accordingly the damping parts (8) have a conical shape seen at right angles to the vertical direction (V).

6. The shoe as claimed in one of claims 1 to 5, characterized in that a central recess (7') for receiving a central damping part (8') is arranged in the damping element (5) and a number of further recesses (7''), in particular six, for receiving further damping parts (8'') are arranged around the central recess (7'), the further recesses (7'') being arranged on a circular path around the center of the central recess (7').

7. The shoe as claimed in claim 6, characterized in that the further recesses (7'') are arranged equidistantly over the circumference of the circular path.

8. The shoe as claimed in one of claims 1 to 7, characterized in that the height (H) of the basic body (6) in the vertical direction (V) is between 0.3 and 2.0 cm, in particular between 0.5 and 1.0 cm.

9. The shoe as claimed in one of claims 1 to 8, characterized in that the basic body (6) and/or the damping parts (8) are made of plastic, in particular of thermoplastic material, preferably of polyamide, polyurethane, polyethylene, polypropylene, polybutane, polyolefin, ethylene-vinylacetate, polyvinyl chloride or a mixture of at least two of these plastics.

10. The shoe as claimed in claim 9, characterized in that the plastic material of the basic body (6) and/or of the damping parts (8) is foamed.

11. The shoe as claimed in claim 9 or 10, characterized in that the material of the basic body (6) and/or of the damping parts (8) has a greater hardness than the material of the sole (2).

12. The shoe as claimed in claim 11, characterized in that the plastic of the basic body (6) and/or of the damping parts (8) has a Shore hardness of between 25A and 45A.

13. The shoe as claimed in claim 12, characterized in that the plastic of the basic body (6) has a lower hardness than the plastic of the damping parts (8).

14. The shoe as claimed in one of claims 9 to 13, characterized in that the material of the sole (2) is translucent or transparent in the region of the basic body (6) and/or of the damping parts (8).

15. The shoe as claimed in one of claims 1 to 14, characterized by a retaining element (9), which fixes the basic body (6) in its position of being arranged in the receiving space (4).

16. The shoe as claimed in claim 15, characterized in that the retaining element (9) is of stirrup-shaped design and grips around the sole (2) from below.

17. The shoe as claimed in claim 16, characterized in that both the sole (2) and the basic body (6) have recesses (10, 11) for positive interaction with the retaining element (9).

18. The shoe as claimed in one of claims 1 to 17, characterized in that the sole (2) consists of an intermediate sole and an outsole connected thereto, and the damping element (5) is arranged in the intermediate sole.

19. The shoe as claimed in one of claims 1 to 18, characterized by a system consisting of a number of damping parts (8) of different hardness provided for optional

interchange, which can be arranged in the recesses (7) of the basic body (6).

20. The shoe as claimed in claim 19, characterized in that each degree of hardness of the damping part (8) is assigned a defined color, with which the damping parts (8) are dyed at least on their outer surface.